IN THE CLAIMS

Please amend the claims as follows:

1.   (Currently Amended) A method for improving branch prediction rates in a microprocessor comprising:

in response to detection of a branch instruction, processing [[a]]one of a plurality of cases;

determining a next case from a sequence involving the processed case, wherein the next case corresponds to one of the plurality of cases; and

processing the next case.

2.   (Original) The method of claim 1, further comprising:

selectively processing the next case based on an associated probability.

3.   (Currently Amended) The method of claim 1, wherein determining the next case and processing the next case occur during the processing of the one of the plurality of cases.

4.   (Original) The method of claim 1, further comprising:

determining the sequence from profile information.

5.   (Original) The method of claim 1, further comprising:

determining a second next case from the sequence; and

processing the second next case.

6. (Currently Amended) The method of claim 5, wherein processing the second next case is ~~selective~~ based on an associated probability.

7. (Currently Amended) The method of claim 5, wherein the determining the second next case and processing the second next case occur during the processing of the <u>one of the plurality of</u> case<u>s</u>.

8. (Currently Amended) The method of claim 1, wherein the <u>one of the plurality of</u> case<u>s</u> and the next case are branch instructions.

9. (Currently Amended) A method of improving a prediction rate for instructions in code comprising:

determining a sequence from profile information; and

transforming the code based on the determined sequence<u>,</u>

<u>wherein the determined sequence comprises a set of cases to be selectively</u>

<u>processed after processing one of a plurality of cases in response to</u>

<u>detection of a branch instruction, and wherein each case in the set</u>

<u>of cases corresponds to one of the plurality of cases.</u>

10. (Canceled)

11.   (Canceled)

12.   (Currently Amended) An apparatus for improving branch prediction rates in a microprocessor comprising:

      a compiler comprising an optimization component,

      wherein the optimization component determines a sequence from profile information and transforms code received by the compiler based on the determined sequence, and

      wherein the determined sequence comprises a set of cases to be selectively processed after processing one of a plurality of cases in response to detection of a branch instruction, and wherein each case in the set of cases corresponds to one of the plurality of cases.

13.   (Canceled)

14.   (Currently Amended) A software tool for improving branch prediction rates in a microprocessor comprising:

      a program stored on computer-readable media for

            in response to detection of a branch instruction, processing [[a]]one of a plurality of cases;

            determining a next case from a sequence involving the processed case, wherein the next case corresponds to one of the plurality of cases; and

processing the next case.

15. (Original) The software tool of claim 14, further comprising:

  a program stored on computer-readable media for

  selectively processing the next case based on an associated probability.

16. (Currently Amended) The software tool of claim 15, wherein determining the next case and processing the next case occur during the processing of the <u>one of the plurality of</u> case<u>s</u>.

17. (Original) The software tool of claim 16, further comprising:

  a program stored on computer-readable media for

   determining the sequence from profile information.

18. (Original) The software tool of claim 14, further comprising:

  a program stored on computer-readable media for

   determining second next case from the sequence; and

   processing the second next case.

19. (Original) The software tool of claim 18, further comprising:

  a program stored on computer-readable media for

   selectively processing the second next case based on an associated

   probability.

20.   (Currently Amended) The software tool of claim 18, wherein determining the

second next case and processing the second next case occur during the processing

of the <u>one of the plurality of</u> case<u>s</u>.

21.   (Currently Amended) The software tool of claim 14, wherein the <u>one of the</u>

<u>plurality of</u> case<u>s</u> and the next case are branch instructions.

22.   (Currently Amended) A software tool for improving a prediction rate for

instructions in code comprising:

a program stored on computer-readable media for

determining a sequence from profile information; and

transforming the code based on the determined sequence<u>,</u>

<u>wherein the determined sequence comprises a set of cases to be</u>

<u>selectively processed after processing one of a plurality of</u>

<u>cases in response to detection of a branch instruction, and</u>

<u>wherein each case in the set of cases corresponds to one of</u>

<u>the plurality of cases</u>.

23.   (Canceled)

24.   (Canceled)

25.   (Currently Amended) An apparatus for improving branch prediction rates in a microprocessor comprising:

means for determining a sequence; and

means for transforming code based on the sequence,

wherein the determined sequence comprises a set of cases to be selectively processed after processing one of a plurality of cases in response to detection of a branch instruction, and wherein each case in the set of cases corresponds to one of the plurality of cases.

26-32. (Canceled)